KOBELCO

SERVICE MANUAL

HYDRAULIC EXCAVATOR

SK60

S5LE0105E 02

APPLICABLE:
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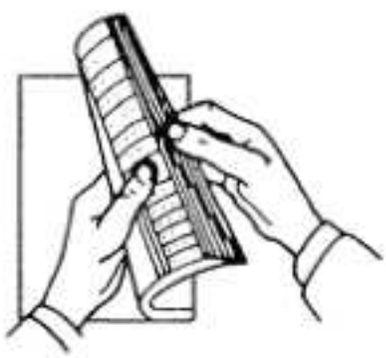
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SHOP MANUAL model SK60

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GENERAL

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SHOP MANUAL SK60

LE01

SPECIFICATION

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4.6.4 ARM DIGGING/SWING (SWING PRIORITY) OPERATION CIRCUIT

The circuit is featured by selection of the lighter load between the arm digging and the swing circuits when both circuits work at the same time as oil is supplied from the same pump and the circuits are arranged in parallel in the control valve. For this purpose, a swing priority circuit is employed so as to stabilize the operation speed smooth the pressed swing digging and the oblique arm tugging.

(1) Pilot circuit

1) Changing the arm spool over
In light-duty operation, such as, surface smoothing in a combine operation of arm digging and swing action, the secondary pilot pressure (PA3) for arm tugging enters port PB5 of the control valve and holds the arm spool in the fixed recycle circuit position. (mentioned above)

2) Changing the neutral cut valve over
If swing operation is performed, the secondary pilot pressure (PA4 or PB4) is selected for high pressure, enters port PS of the control valve and changes the neutral cut valve over.

3) Pressing check valve (C)
The secondary pilot pressure for swing motion which has entered port PS of the control valve passes through logic valve (80), acts upon the back pressure of check valve (C) of the arm spool and presses the check valve.

(2) Main circuit

1) Feed circuit
The oil delivered by the No.2 variable displacement pump is supplied to both the arm cylinder and the swing motor by the parallel circuit.

2) Return circuit of arm cylinder
Since the returned oil from the rod (R) of the arm cylinder is shut off by check valve (C) of the arm spool in the control valve, it pushes check valve (B) open and is recycled to the cylinder. As the result the pressure of the head (H) of the cylinder rises.

3) Swing priority circuit
If arm action and swing action are performed at the same time, the arm digging pressure rises as mentioned above and is supplied to the swing motor on a priority basis.

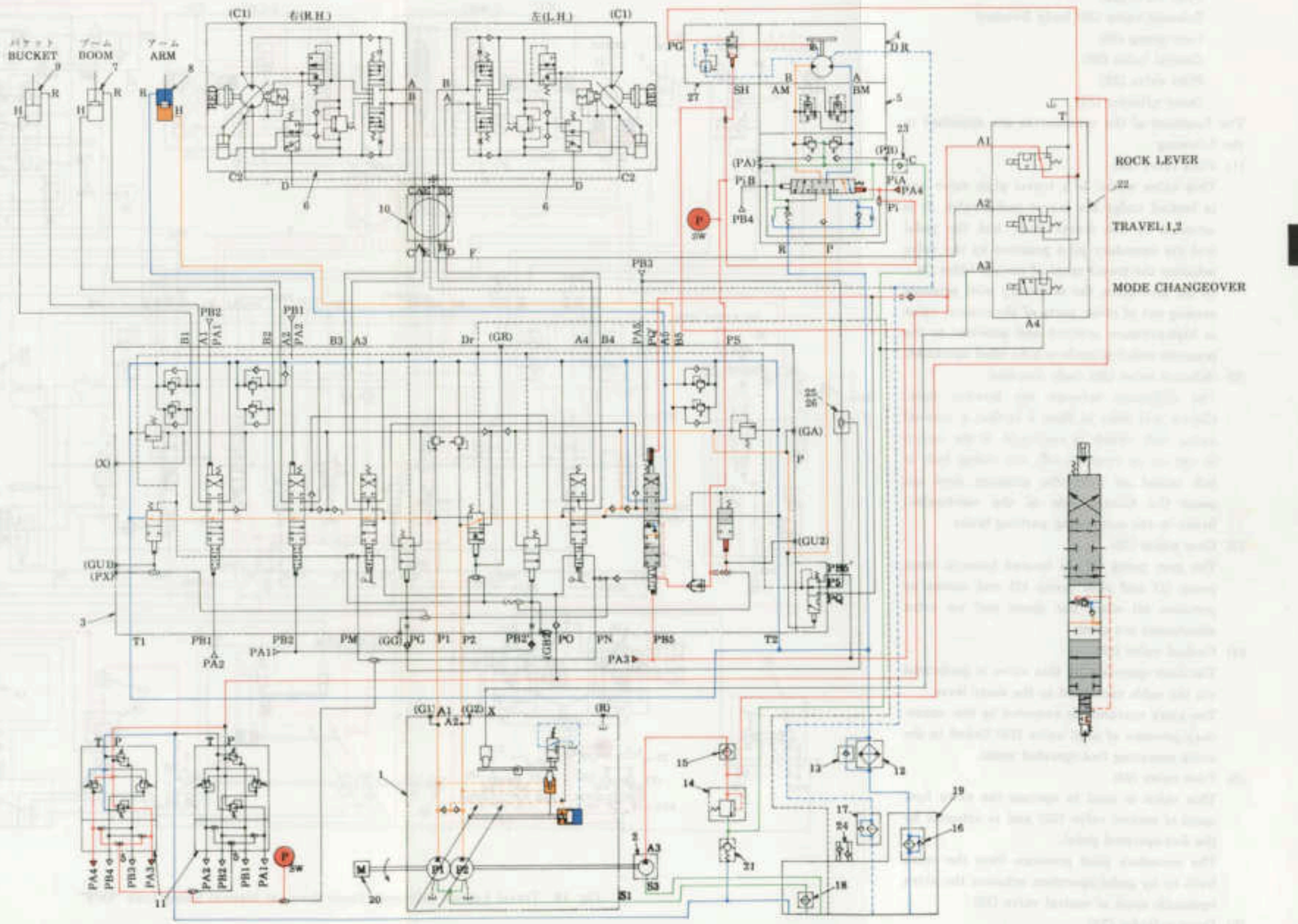


Fig. 17 Arm digging/ swing left (swing priority) operation circuit

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